

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/JP00/04477

**A. CLASSIFICATION OF SUBJECT MATTER**

Int.Cl<sup>7</sup> H01L21/318, 29/78, 29/788, 29/792, 21/8247, 27/10

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> H01L21/318, 21/203, 29/78, C30B23/08

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1926-1996	Toroku Jitsuyo Shinan Koho	1994-2000
Kokai Jitsuyo Shinan Koho	1971-2000	Jitsuyo Shinan Toroku Koho	1996-2000

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

F TERM SYSTEM  
WPI/L

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP, 11-162852, A (TDK Corporation), 18 June, 1999 (18.06.99), Par. Nos. 0060 to 0068 (Family: none)	1-4
A	US, 5616947, A1 (Matsushita Electric Industrial Co.), 01 April, 1997 (01.04.97), Column 6, line 15 to Column 7, line 17 & JP, 8-153867, A Par. Nos. 0042 to 0048	1-13
X	JP, 64-82671, A (NEC Corporation),	14
Y	28 March, 1989 (28.03.89),	15
A	Full text (Family: none)	16-23
X	JP, 10-223901, A (Sony Corporation),	14
Y	21 August, 1998 (21.08.98),	15
A	Full text & US, 5929467, A1	16-23
Y	JP, 62-92327, A (Hitachi, Ltd.), 27 April, 1987 (27.04.87), page 3, upper left column, line 18 to upper right column,	15

Further documents are listed in the continuation of Box C.  See patent family annex.

• Special categories of cited documents:	
“A” document defining the general state of the art which is not considered to be of particular relevance	“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
“E” earlier document but published on or after the international filing date	“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
“O” document referring to an oral disclosure, use, exhibition or other means	“&” document member of the same patent family
“P” document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search  
27 September, 2000 (27.09.00)

Date of mailing of the international search report  
10 October, 2000 (10.10.00)

Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	line 3 (Family: none)  JP, 9-309795, A (Fine Ceramics Center), 02 December, 1997 (02.12.97), Full text (Family: none)	1-13
A	JP, 1-211976, A (NEC Corporation), 25 August, 1989 (25.08.89), Full text (Family: none)	11-13

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Pay attention to the following errors.

Claim 10 refers to claim 11. However, there is no description including the term, nitrogen in claim 11.

Claim 13 refers to claim 13 itself.

There is an expression "the gate insulating film" in claim 14, but there is no term, a gate insulating film, mentioned before and referred to in the claim.